

**ABSTRACT OF THE DISCLOSURE**

A method and apparatus for performing a built-in self-test ("BIST") on an integrated circuit device are disclosed. More particularly, in a first aspect, a BIST controller includes a memory built-in self-test ("MBIST") engine and a MBIST test signature register. The MBIST engine is capable of performing a MBIST and the MBIST signature register is capable of storing the results of the MBIST. In a second aspect, a method for performing a MBIST includes first externally resetting a MBIST engine and a MBIST signature register. Next, the method initiates a plurality of components and signals in a MBIST engine and the MBIST signature register upon receipt of at least one of a MBIST run signal and a MBIST select signal. The contents of a plurality of memory components are then flushed to a known state. The flushed memory components are then tested and the results of the testing are stored in the MBIST signature register.

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